Cornwall-Lebanon School District Curriculum Overview

Honors Geometry – High School

length of time in weeks	Concepts & Competencies	Common Assessments	PA Core Standards
Unit 1 — 3	**Points, Lines and Planes** Students will solve for missing parts of line segments. Students will find distance and midpoint on a coordinate plane. Students will identify basic geometric figures. Students will understand patterns and write equations to model patterns. Students will write two-column proofs.	➢ Points, lines and planes Quiz ➢ Unit 1 Test	CC.2.3.HS.A.3
Unit 2 — 3	**Angle Measure and Deductive Reasoning** Students will identify angles using correct vocabulary. Students will solve for an angle's measure. Students will write two-column proofs. Students will fill-in truth tables. Students will solve problems using deductive reasoning. Students will identify and interpret conditional statements.	➢ Deductive Reasoning Quiz ➢ Angle Measure Quiz ➢ Unit 2 Test	CC.2.3.HS.A.3
Unit 3 — 3	**Parallel and Perpendicular Lines** Students will identify whether lines are parallel, perpendicular, skew, or oblique. Students will write equations of parallel and perpendicular lines. Students will solve for angles formed by parallel and perpendicular lines. Students will write two-column proofs.	➢ Parallel Lines Quiz ➢ Marking Period 1 Exam ➢ Writing parallel and perpendicular equations and Proving lines are parallel Quiz	CC.2.3.HS.A.3 CC.2.2.HS.D.1
Unit 4 — 3	**Congruent Triangles** Students will classify triangles by angles and sides. Students will solve for missing angles of a triangle. Students will solve for missing parts of congruent shapes. Students will prove that two triangles are congruent. Students will solve problems using properties of isosceles and equilateral triangles.	➢ Congruent Triangles Quiz ➢ Unit 4 Test	CC.2.3.HS.A.3 CC.2.3.HS.A.4 CC.2.3.HS.A.11

Unit 5 — 3	**Relationships in Triangles** Students will solve for missing parts of triangles that have medians, altitudes, perpendicular bisectors and angle bisectors. Students will solve problems involving the circumcenter, centroid, orthocenter, and incenter. Students will order a triangle's sides and angles from smallest to largest. Students will determine whether three lengths can create a triangle.	➢ Points of concurrency Quiz ➢ Unit 5 Test	CC.2.3.HS.A.3 CC.2.3.HS.A.11 CC.2.2.HS.D.1
Unit 6 — 2	**Polygons** Students will solve for missing angle measures of polygons. Students will solve for missing parts of rectangles, rhombi, squares, and parallelograms. Students will solve for missing parts of trapezoids and kites. Students will identify special quadrilaterals. Students will write two-column proofs.	➢ Special quadrilateral Quiz ➢ Unit 6 Test ➢ Midterm Exam (Cumulative)	CC.2.3.HS.A.3 CC.2.3.HS.A.11
Unit 7 — 2	**Proportions and Similarity** Students will write ratios and solve proportions. Students will solve for missing parts of similar triangles. Students will prove that two triangles are similar. Students will solve real-world applications of similar triangles.	➢ Similar triangles Quiz ➢ Unit 7 Test	CC.2.3.HS.A.3 CC.2.3.HS.A.6 CC.2.3.HS.A.11 CC.2.3.HS.A.14
Unit 8 — 3	**Right Triangles and Trigonometry** Students will use the Pythagorean theorem and its converse to solve problems. Students will setup and solve proportions for right triangles. Students will solve for missing parts of special right triangles. Students will use trigonometry to solve for missing parts of right and non-right triangles. Students will solve real-world applications problems using trigonometry.	➢ Right Triangle Quiz ➢ Unit 8 Test	CC.2.3.HS.A.3 CC.2.3.HS.A.7 CC.2.3.HS.A.14 CC.2.2.HS.C.9
Unit 9 — 3	**Transformations and Symmetry** Students will determine coordinates for points that are transformed by reflections, translations, rotations, and dilations. Students will determine the symmetries of two- and three-dimensional shapes. Students will write equations for lines of symmetries and vectors for translations.	➢ Congruence transformation Quiz ➢ Unit 9 Test ➢ Marking Period 3 Exam	CC.2.3.HS.A.1 CC.2.3.HS.A.2 CC.2.3.HS.A.5 CC.2.3.HS.A.11

Unit 10 — 3	**Circles** Students will identify the parts of a circle. Students will solve for missing angles and lengths in a circle. Students will calculate circumference and arc length. Students will use properties of tangent and secant lines to solve for length and angle measure. Students will write the equation of a circle on a coordinate plane.	➢ Circumference, Angles, and Arcs Quiz ➢ Unit 10 Test	CC.2.3.HS.A.8 CC.2.3.HS.A.9
Unit 11 — 2	**Area** Students will calculate the area of parallelograms and triangles. Students will calculate the area of trapezoids, rhombi and kites. Students will calculate the area of circles and sectors. Students will calculate the area of regular polygons and composite figures. Students will calculate the area of similar figures.	➢ Area of triangles, quadrilaterals, and circles Quiz ➢ Unit 11 Test	CC.2.3.HS.A.9 CC.2.3.HS.A.14
Unit 12 — 3	**Surface Area and Volume** Students will calculate the surface area and volume of prisms and cylinders. Students will calculate the surface area and volume of pyramids and cones. Students will calculate the surface area and volume of spheres. Students will calculate the surface area and volume of congruent and similar solids. Students will calculate the surface area and volume of composite solids.	➢ Surface area Quiz ➢ Volume Quiz ➢ Unit 12 Test	CC.2.3.HS.A.12 CC.2.3.HS.A.13 CC.2.3.HS.A.14
Unit 13 — 2	**Probability** Students will use the Fundamental Counting Principle to determine the size of a sample space. Students will use permutations and combinations to determine the size of a sample space. Students will use geometric probability to solve problems.	➢ Unit 13 Quiz ➢ Final Exam (Second Semester)	CC.2.4.HS.B.7